REMARKS

Reconsideration and allowance of the subject application. Upon entry of this Amendment, claims 1-4 are pending in the application. In response to the Office Action (Paper No. 12), Applicant respectfully submits that the pending claims define patentable subject matter.

Claims 3 and 4 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten independent form. By this Amendment, Applicant has rewritten claims 3 and 4 in independent form in order to place these claims in condition for allowance. Applicant respectfully submits that the amendments to claims 3 and 4 should be entered since they do not raise new issues which would require further consideration and/or search, and place the application in better form for appeal.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Tohyama et al. (USP 6,205,854; hereafter "Tohyama"). Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Tohyama. Applicant respectfully submits that the claimed invention would not have been anticipated by or rendered obvious in view of Tohyama.

As shown in Figs. 1 and 3-5, Tohyama discloses a conventional temperature control circuit 100 including a bridge circuit including a flow rate detecting heat-sensitive resistor R_H, an atmospheric or ambient temperature detecting heat-sensitive resistor R_K, a flow rate detecting fixed resistor R_M (R_2 in Fig. 5) and a temperature compensating fixed resistor R_1. The temperature control circuit 100 further includes a differential amplifier 101 having input terminals connected to junctions b and f of the bridge circuit, a transistor 102 and a DC power source 103. When the voltages at the junctions b and f are equal to each other, the bridge circuit

assumes an equilibrium or balanced state, wherein an electric current I_h corresponding to the flow rate of a fluid flows through the flow rate detecting heat-sensitive resistor R_H. The output voltage V_M at the junction b corresponds to a product of the current I_h and the resistance value of the resistor R_M, wherein the voltage V_M is used as a flow rate signal. See column 1, lines 40 - column 2, line 10; and column 8, lines 40-63.

With regard to claim 1, the Examiner asserts that Tohyama discloses the claimed second temperature detecting resistor via the flow rate detecting fixed resistor R_M. However, Tohyama does not teach or suggest the flow rate detecting fixed resistor R_M is provided in fluid communication with the flow rate detecting heat-sensitive resistor R_H (which the Examiner contends corresponds to the claimed heat generating resistor), as required by claim 1.[2] Rather, the flow rate detecting fixed resistor R_M is simply a fixed resistor (rather than a thermosensitive resistor) which is provided to determine the current I_H flowing through the flow rate detecting heat-sensitive resistor R_H (i.e., current I_H is the product of the fixed resistance value of the resistor R_M and the output voltage V_H at the junction b). Therefore, there is no reason to have provided the flow rate detecting fixed resistor R_M in fluid communication with the flow rate detecting heat-sensitive resistor R_H, or even in the fluid to be measured on the flow rate detecting element.

Further, Applicant respectfully submits that Tohyama does not teach or suggest "a bridge circuit having said first temperature detecting resistor and said second temperature detecting

[2] Claim 1 recites, in part, "a second temperature detecting resistor, provided in fluid communication with the heat generating resistor, for detecting the temperature of said heat generating resistor."

resistor electrically connected together therein, the bridge circuit being adapted to control a heating current of said heat generating resistor to maintain a constant temperature difference between said first temperature detecting resistor and said second temperature detecting resistor", as required by claim 1. That is, Applicant respectfully submits that it is quite clear that Tohyama's bridge circuit (formed by resistors R_K, R_H, R_1 and R_M) does not control the heating current of the flow rate detecting heat-sensitive resistor R_H (which the Examiner contends corresponds to the claimed heat generating resistor) to maintain a constant temperature difference between the ambient temperature detecting heat-sensitive resistor R_K (which the Examiner contends corresponds to the claimed first temperature detecting resistor) and the flow rate detecting fixed resistor R_M (which the Examiner contends corresponds to the claimed second temperature detecting resistor).

With regard to independent claim 2, Applicant respectfully submits it is quite clear that Tohyama does not teach or suggest "a differential amplifier connected directly to the bridge circuit, the differential amplifier being adapted to divide a voltage across the heat generating resistor and output the divided voltage to the bridge circuit, wherein the second temperature detecting resistor is maintained at a constant temperature that is *higher* than a temperature of the first temperature detecting resistor and the heat generating resistor is maintained at substantially a *same* temperature as the second temperature detecting resistor", as claimed.

Although the Examiner concedes Tohyama does not disclose the claimed differential amplifier, the Examiner asserts "it would have been obvious to have the first and second temperature sensors of Tohyama et al to remain the same for purpose of balancing the bridge

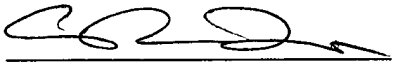
circuit [because t]he bridge circuit has to be maintained at a constant temperature in order to determine the flow rate of the fluid in the flow." However, the Examiner's assertions in this regard are not understood since the claim recites the second temperature detecting resistor is maintained at a constant temperature that is *higher* than a temperature of the first temperature detecting resistor. Moreover, the Examiner's assertions fail address the fact that neither the differential amplifier 101 nor any other element of the temperature control circuit 100 "is adapted to divide a voltage across the heat generating resistor and output the divided voltage to the bridge circuit", as required by claim 2. Rather, Tohyama's differential amplifier 101 simply amplifies the difference between the voltages at junctions b and f of the bridge circuit and outputs the amplified difference to the transistor 102. Further, Applicant respectfully submits that there is no suggestion or motivation, either in Tohyama or in the knowledge generally available to one of ordinary skill in the art, to modify the differential amplifier 101 to divide a voltage across the heat generating resistor and output the divided voltage to the bridge circuit.

Accordingly, Applicant respectfully submits that claims 1 and 2 should be allowable over the Tohyama because the cited reference does not teach or suggest all of the features of the claims.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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